

PATENT APPLICATION

Sheet 1 of 9

<p>FORM PTO-1449</p> <p>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</p> <p align="center">(Use several sheets if necessary)</p>	<p>ATTY. DOCKET NO. 200315134-1</p>	<p>APPLICATION NO. 10/799,325</p>	<p>CONFIRMATION NO.</p>
<p>APPLICANT Randy L. Hoffman</p>			
<p>FILING DATE Herewith</p>		<p>GROUP</p>	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
TT	1A	4,559,238	12/17/2985	Bujatti, et al.	
TT	1B	5,107,314	04/21/1992	Kahng, et al.	
TT	1C	5,744,864	08/28/1998	Cillessen, et al.	
TT	1D	2003/0047785	02/13/2003	Kawasaki, et al.	
TT	1E	2003/0104659	06/05/2003	Arakawak, et al.	
TT	1F	2003/0111663	06/19/2003	Yagi	
TT	1G	2003/0139026	07/24/2003	Lucovosky	
TT	1H	2003/0180996	09/25/2003	Yamazaki, et al.	
TT	1I	2003/0186489	10/02/2003	Ishikawa	
TT	1J	2003/18221	11/27/2003	Wager, III, et al.	
TT	1K	2003/18222	11/27/2003	Wager, III, et al.	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
TT	1L	WO 97-06544 ^S	02/20/1997	Cillessen, et al.		
TT	1M	EP1134811	09/19/2001	Kawasaki, et al.		
	1N					
	1O					
	1P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

TT	1Q	Aoki, Akira, et al., "Tin Oxide Thin Film Transistors", Japan J. Appl. Phys., Vol. 9, p.582 (1970).
TT	1R	Carcia, P.F., et al., "Transparent ZnO thin-film transistor fabricated by rf magnetron sputtering", Applied Physics Letters, Vol. 82, No. 7, pp. 1117-1119 (February 17, 2003).
TT	1S	Carcia, P.F., et al., "ZnO Thin Film Transistors for Flexible Electronics", Mat. Res. Soc. Symp. Proc., Vol. 769, pp. H72.1-H72.6 (2003).

<p>EXAMINER</p> <p align="center"><i>Thien Kme</i></p>	<p>DATE CONSIDERED</p> <p align="center"><i>10-11-2005</i></p>
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PATENT APPLICATION

Sheet 2 of 9

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 200315134-1	APPLICATION NO. 10/799,325	CONFIRMATION NO.
	APPLICANT Randy L. Hoffman		
	FILING DATE Herewith	GROUP	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
TT	2A	2003/0224550	12/04/2003	Kokubo, et al.	
TT	2B	60/490,239	07/25/2003		Transparent Thin Film Transistor with Zinc-Tin Oxide Channel...
TT	2C	10/763,239	01/23/2004		Semiconductor Device
TT	2D	10/763,354	01/23/2004		Transistor Including a Deposited Channel Region Having a ...
	2E				
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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	2L					
	2M					
	2N					
	2O					
	2P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

TT	2Q	Fu, Shelton, et al., "MOS and MOSFET with Transistion Metal Oxides", SPIE Vol. 2697, pp. 520-527.
TT	2R	Giesbers, J.B., et al., "Dry Etching of All-Oxide Transparent Thin Film Memory Transistors", Microeletronic Engineering, Vol. 35, pp. 71-74 (1997).
TT	2S	Grosse-Holz, K.O., et al. "Semiconductive Behavior of Sb Doped SnO2 Thin Films", Mat. Res. Soc. Symp. Proc., Vol. 401, pp. 67-72 (1996).

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PATENT APPLICATION

Sheet 3 of 9

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 200315134-1	APPLICATION NO. 10/799,325	CONFIRMATION NO.
APPLICANT Randy L. Hoffman			
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REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

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	3L					
	3M					
	3N					
	3O					
	3P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

Π	3Q	Hajnal, Zoltán, et al., "Role of oxygen vacancy defect states in the N-type conduction of B-Ga2O3", Journal of Applied Physics, Vol. 86, No. 7, pp. 3792-3796 (October 1, 1999).
Π	3R	Hajnal, Z., et al., "Theoretical Investigation of the Oxygen Vacancies in B-Ga2O3", Rapid Research Notes, Phys. Stat. Sol. (a), Vol. 171, No. R5 (1999).
Π	3S	Hoffman, R.L., et al., "ZnO-based transparent thin-film transistors", Applied Physics Letters, Vol. 82, No. 5, pp. 733-735 (February 3, 2003).

EXAMINER <div style="text-align: center; font-size: 1.2em;">Hoffman</div>	DATE CONSIDERED <div style="text-align: center; font-size: 1.2em;">10-11-2005</div>
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PATENT APPLICATION

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FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

200315134-1

APPLICATION NO.

10/799,325

CONFIRMATION NO.

APPLICANT

Randy L. Hoffman

FILING DATE

Herewith

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REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

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	4M					
	4N					
	4O					
	4P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

TT	4Q	Masuda, Satoshi, et al., "Transparent thin film transistors using ZnO as an active channel layer and their electrical properties", Journal of Applied Physics, Vol. 93, No. 3, pp. 1624-1630 (February 1, 2003).
TT	4R	Nakano, Yoshitaka, et al. "Electrical properties of thermally oxidized p-GaN metal-oxide-semiconductor diodes", Applied Physics Letters, Vol. 82, No. 15, pp. 2443-2445 (April, 14, 2003).
TT	4S	Nishi, Junya, et al., "High Mobility Thin Film Transistors with Transparent ZnO Channels", Jpn. J. Appl. Phys., Vol. 42, Part 2, No. 4A, pp. L347-L349 (April, 2003).

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PATENT APPLICATION

Sheet 5 of 9

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 200315134-1	APPLICATION NO. 10/799,325	CONFIRMATION NO.
APPLICANT Randy L. Hoffman			
FILING DATE Herewith		GROUP	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS


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OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

TT	5Q	Ohya, Yutaka, et al., "Thin Film Transistor of ZnO Fabricated by Chemical Solution Deposition", Jpn. J. Appl. Phys., Vol. 40, Part 1, No. 1, pp. 297-298 (January, 2001).
TT	5R	Orita, Masahiro, et al., "Deep-ultraviolet transparent conductive B-Ga2O3 thin films", Applied Physics Letters, Vol. 77, No. 25, pp. 4166-4168 (December 18, 2002).
TT	5S	Oritia, Masahiro, et al., "Preparation of highly conductive, deep ultraviolet transparent B-Ga2O3 thin film at low deposition temperatures", Thin Solid Films, Vol. 411, pp. 134-139 (2002).

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PATENT APPLICATION

Sheet 6 of 9

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 200315134-1	APPLICATION NO. 10/799,325	CONFIRMATION NO.
APPLICANT Randy L. Hoffman			
FILING DATE Herewith		GROUP	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

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	6L					
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	6O					
	6P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

TT	6Q	Pallecchi, Ilaria, et al. "SrTiO3-based metal-insulator-semiconductor heterostructures" Applied Physics Letters, Vol. 78, No. 15, pp. 2244-2246 (April 9, 2001).
TT	6R	Prins, M. W. J., et al., "A ferroelectric transparent thin-film transistor", Applied Physics. Letters, Vol. 68, No. 25, pp. 3650-3652 (June 17, 1996).
TT	6S	Seager, C.H., et al., "Charge Trapping and device behavior in ferroelectric memories", Appl. Phys. Lett., Vol. 68, No. 19, pp. 2660-2662 (May 8, 1996).

EXAMINER <div style="font-family: cursive; font-size: 1.2em;">Thien Lam</div>	DATE CONSIDERED <div style="font-family: cursive; font-size: 1.2em;">10-11-2005</div>
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PATENT APPLICATION

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FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO.	APPLICATION NO.	CONFIRMATION NO.
	200315134-1	10/799,325	
	APPLICANT		
	Randy L. Hoffman		
	FILING DATE	GROUP	
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OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

TT	7Q	Ueda, Naoyuki, et al. "Anistrophy of electrical optical properties in BOGa2O3 single crystals", Appl. Phys. Lett., Vol. 71, No. 7, pp. 933-935 (August 18, 1997).
TT	7R	Ueda, Naoyuki, et al., "Systhesis and control of conductivity of ultraviolet transmitting B-Ga2O3 single crystals", Appl. Phys. Lett., Vol. 70, No. 21, pp. 3561-3563 (June 30, 1997).
TT	7S	Uneno, K., et al. "Field-effect transistor on SrTiO3 with sputtered Al2O3 gate insulator", Applied Physics Letter, Vol. 83, No. 9, pp. 1755-1757 (September 1, 2003).

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10-11-2005

PATENT APPLICATION

Sheet 8 of 9

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 200315134-1	APPLICATION NO. 10/799,325	CONFIRMATION NO.
APPLICANT Randy L. Hoffman			
FILING DATE Herewith		GROUP	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

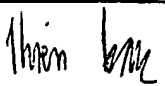
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	8N					
	8O					
	8P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	8Q	Vf Ilora, E.G., et al., "Infrared Reflectance and Electrical Conductivity of B-Ga2O3", Phys..Stat..Sol. (a), Vo. 193, No. 1, pp. 187-195 (2002).
TT	8R	Wöllensteien, Jürgen, et al., "An insulated gate thin-film transistor using SnO2 as semiconducting channel, a possible new gas sensor device" The 11th European Conference on Solid State Transducers, pp. 471-474 (September 21-24, 1997).
TT	8S	Yoshida, A., "Three Terminal Field Effect Superconducting Device Using SrTiO3 Channel" IEEE Transactions on Applied Superconductivity, Vol. 5, No. 2, pp. 2892-2895 (June, 1995).

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PATENT APPLICATION

Sheet 9 of 9

FORM PTO-1449 LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 2003151341-1	APPLICATION NO. 10/799,325	CONFIRMATION NO.
APPLICANT Randy L. Hoffman			
FILING DATE Herewith		GROUP	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

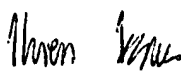
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	9L					
	9M					
	9N					
	9O					
	9P					

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

II	9Q	Solid-State Electronics, Vol. 7, Pergamon Press, Notes pp. 701-702 (1964).
II	9R	Anonymous, "Transparent and/or memory thin film transistors in LCD's and PLEAD_" Research Disclosure, p. 890 (July 1998).
	9S	

EXAMINER <div style="text-align: center; font-family: cursive;">  </div>	DATE CONSIDERED <div style="text-align: center;">10-11-2005</div>
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PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number	10/799325
Filing Date	Mar 12, 2004
First Named Inventor	Randy Hoffm
Art Unit	2811
Examiner Name	Thien Tran
Attorney Docket Number	200315134-1

Sheet	1	of	2
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U. S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
		WO 02/15233	02-21-2002	Walter	
		EP 1 306 858	03-02-2003	Japan Science	
		EP 1 367 657	12-03-2003	Koha Co.	

**Examiner
Signature**

Therese Wm

Date
Considered

10-11-2005

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/799325
Filing Date	Mar 12, 2004
First Named Inventor	Randy Hoffman
Art Unit	2811
Examiner Name	Thien Tran
Attorney Docket Number	200315134-1

Sheet

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
TT		OHTA, H., "Frontier of transparent oxide semiconductors", Solid State Electronics, vol. 47, no. 12, Dec 2003, pgs 2261-2267	
TT		OGITA, M., "Properties of gallium oxide thin film...", Proceedings of the 27th annual conf. of the IEEE Ind. Elect. Society, 11/29-12/2/2001, vol. 1 of 3, conf 27, pgs 137-140	

Examiner Signature	<i>Thien Tran</i>	Date Considered	10-11-2005
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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